

A New Jersey Historic Bridge Sampler

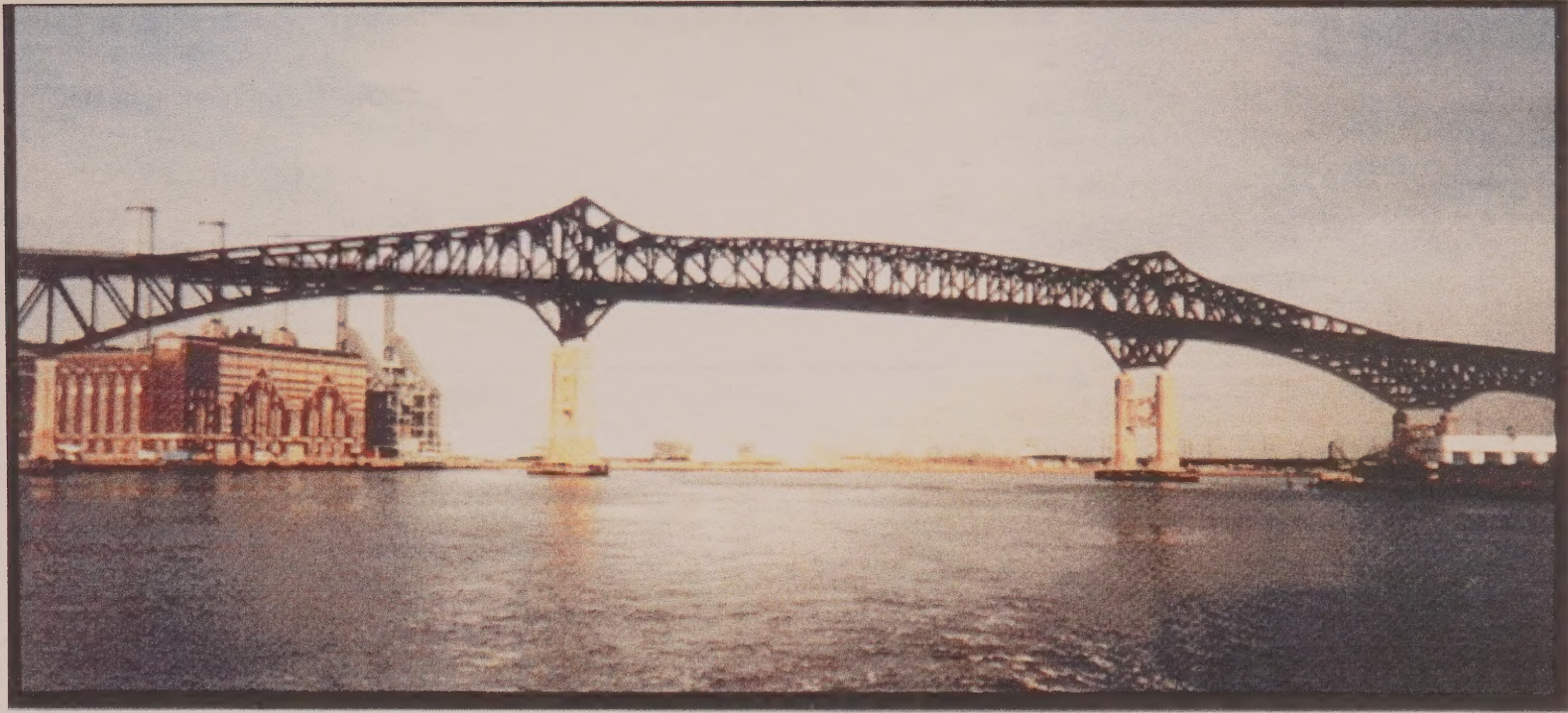
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# A New Jersey Historic Bridge Sampler



## *Our Bridges...Our Legacy*

New Jersey Department of Transportation

Bureau of Structural Engineering

May, 2002

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“Our Bridges..Our Legacy”.

In recognition of our theme and on the occasion of the 2002 meeting of the AASHTO Subcommittee on Bridges and Structures we have assembled a small sampling of some of our more notable bridges. These bridges may not stand out in size or uniqueness but very simply are some of the senior citizens in our inventory who through the years have served their users exceptionally well thanks to the outstanding efforts of our predecessors in the inventory. These structures represent their legacy. May we continue the standards of excellence they have set for us.

To those bridge engineers of old, thanks!

Harry A. Capers, Jr. PE  
State Bridge Engineer  
Bureau of Structural Engineering,  
New Jersey Department of Transportation

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### On the Cover


**Structure #** 0704-150,0901-150 **Township:** City of Newark, Jersey City **County:** Essex **Owner:** NJDOT

**Type:** 2 Cantilever Through Truss main spans and 118 Pratt Deck truss approach spans

**Built:** 1932 **Cost:** \$ 20 million **Material:** Steel **Design:** Center Bearing **Length:** 18,480 feet **Width** 44 feet ft

Designed by: Sigvald Johannesson

The Pulaski Skyway, when completed in 1932, represented the single largest highway construction project undertaken in the United States to that date. Further, the conditions leading to it's construction, that being the need to efficiently move good's into the Port of New York from Railheads in New Jersey, foreshadowed the growth in interstate auto travel. As the design of this facility preceded the existence of formal highway design standards, design was based on the application of well-established railway engineering principals to highway applications. In terms of it's design, the Skyway and adjoining highways are significant as an early application of highway engineering principles in that it was one of the first roads specifically designed solely for high speed automobile and heavy commercial truck use. In the 1930's it was known as “the greatest highway project in the United States”. Certainly, it provided a vision of what was to come.



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# Union Avenue over Passaic River



## Union Avenue over Passaic River

**Structure #** 020011 **Township:** Rutherford Borough **County:** Bergen **Owner:** County

**Type:** Swing Span **# Spans:** 4 **Material:** Steel **Design:** Center Bearing **Length:** 285 ft. **Width:** 19.3 ft.

**Constructed:** 1896 **Alteration Date:** 1924, 1977

**Builder:** Dean & Westbrook, NY

**Summary:** The Pratt thru truss swing span supported on ashlar and concrete substructure has double intersecting Warren deck truss approach spans. In 1924 the bridge operation was motorized. Cables were added at an unknown date to strengthen several truss diagonals. In 1977 an approach span collapsed and emergency repairs were made. An early and increasingly rare example of a thru truss swing bridge built by nationally recognized NYC engineers Dean and Westbrook; the span is evaluated as eligible.

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# Chesterfield – Sykesville Road over Blacks Creek



**Chesterfield-Sykesville Road over Blacks Creek**  
**Structure #** 03F2320  
**Township:** Chesterfield Twp    **County:** Burlington  
**Owner:** County  
**Type:** Slab #Spans: 2  
**Material:** Reinforced Concrete  
**Length:** 46 ft    **Width:** 19.5 ft  
**Constructed:** 1911    **Alteration Date:** 1940  
**Builder:** Ferro-Concrete Company

**Summary:** Built in 1911 as a 2-span reinforced concrete slab span on a concrete substructure, the bridge is arranged like a 2-cell culvert with an invert slab, and wood flood gates (removed). Built by the Ferro Concrete Co. of Harrisburg, the technology represented by the bridge is one of the State's earliest surviving examples of concrete slab construction. The builder was the local agent for D. Luten's National Bridge Co. and his designs, but no plans survive to show if this is a patented design.



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# US 30 Over Newton Creek



## **US 30 over Newton Creek**

**Structure #** 0404150

**Township:** Collingswood Borough

**County:** Camden **Owner:** NJDOT

**Type:** Deck Arch **# Spans:** 1

**Material:** Reinforced Concrete

**Design:** Single Barrel Arch

**Length:** 25 ft **Width:** 41 ft

**Constructed:** 1916

**Builder:** Integrity Construction Co.

**Design?Patent:** J.J. Albertson, Co. Engineer

**Summary:** This well-preserved and well-proportioned 1916 reinforced concrete arch with a paneled parapet and wing walls is a good example of its structural type. It is one of 8 built by the county between 1905 and 1937. It was designed by the county engineering department under County Engineer J.J. Albertson and is better detailed than most of the other concrete arch bridges in the county. It is technologically significant based on its design and state of preservation.

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# Federal Street over Cooper River



## Federal Street over Cooper River

**Structure #** 043B008

**Township:** Camden City

**County:** Camden **Owner:** County

**Type:** Single Leaf Bascule **# Spans:** 1

**Material:** Steel

**Design:** Strauss Overhead

**Length:** 134 ft **Width:** 34 ft

**Constructed:** 1906

**Builder:** Strauss Bascule Bridge Co.

**Design/Patent:** Strauss Bascule Bridge Co.



**Summary:** One of about 6 overhead counterweight bascule bridges remaining in the State, the patented Strauss bridge was erected in 1906. The rarity of the once-common structural type coupled with its distinctive Beaux Arts concrete detailing combine to make the Federal Street bridge one of the most significant movable bridges in the State. Its decorative concrete detailing reflects the tenets of the City Beautiful movement that dominated pre-World War II civic projects.

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# Jackson Street over Raymond



## Jackson Street over Raymond

**Structure #** 0700H02 **Township:** Newark City **County:** Essex

**Type:** Thru Truss Swing Span **# Spans:** 2 **Material:** Steel

**Design:** Rim Bearing **Length:** 710 ft **Width:** 39.7 ft

**Constructed:** 1897 **Alteration Date:** 1991

**Builder:** McCann Fagan Iron Works

**Designer/Patent:** J. Owens, Co. Engineer

**Owner:** County

**Summary:** The lattice thru truss swing span bridge is supported on a stone substructure. In 1991 repairs to the span included strengthening the truss lower chord and diagonals, and replacing the drum girder, wheel assembly, and floor beams. Additionally the entire operating mechanism was replaced. The only original feature of the span is the truss lines, but because they are rare examples of an uncommon type, the span remains technologically and historically noteworthy.

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# Bridge Street over Passaic River



## Bridge Street over Passaic River

**Structure #** 0700H03   **Township:** Newark City   **County:** Essex   **Owner:** County

**Type:** Thru Truss Swing Span   **# Spans:** 4   **Material:** Steel   **Design:** Rim Bearing   **Length:** 371 ft   **Width:** 39 ft

**Constructed:** 1913   **Alteration Date:** 1981

**Builder:** American Bridge Company   **Designer/Patent:** Unknown

**Summary:** The rim-bearing Pratt thru truss swing span bridge is supported on an ashlar substructure with concrete caps. In 1981 the cast gatehouse was removed, a new overhead control house was erected, and the operation was rendered fully automated. The trusses were also repaired. One of three operational rim-bearing swing spans in the industrial heart of Newark, the span is evaluated as significant based on its type and historical associations despite alterations.

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# NJ 44 Over Mantua Creek



## **NJ 44 over Mantua Creek**

**Structure #** 0806151

**Township:** Paulsboro Borough

**County:** Gloucester

**Owner:** NJDOT    **Type:** Vertical Lift

**# Spans:** 1    **Material:** Steel

**Length:** 167 ft    **Width:** 40 ft

**Constructed:** 1935

**Builder:** Unknown

**Designer/Patent:** NJ State Highway Bridge Division

**Summary:** The vertical lift bridge has a thru-girder deck, lattice-girder vertical towers with portal bracing and longitudinal lattice girders, wire-rope lift mechanism, reinforced-concrete counterweights in steel-plate frames, and operating machinery at the center of the span. The bridge is a distinguished and well-preserved example of a “Waddell-type” vertical lift, and is one of three such bridges built by the State in the county between 1935 and 1940. This structures are eligible for the National Register.

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# US 130 Over Raccoon Creek



## US 130 over Raccoon Creek

**Structure #** 0817151

**Township:** Logan Township **County:** Gloucester

**Owner:** NJDOT

**Type:** Vertical Lift    **# Spans:** 5    **Material:** Steel

**Length:** 285 ft    **Width:** 52 ft

**Constructed:** 1940

**Builder:** Unknown

**Designer/Patent:** Ash, Howard, Needles & Tammen

**Summary:** The skewed vertical lift bridge has a thru-girder movable span, built-up towers with portal bracing and longitudinal girders, concrete counterweights with steel-plate frames, and a steel grate deck. It is a distinguished and well-preserved example of a “Waddell-type” vertical lift. The bridge is the largest and newest of three vertical lifts built by the State in the county between 1935-1940. All are eligible. The tender’s shanty was replaced in 1988. This structures are eligible for the National Register.

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# JFK Blvd. Over Conrail (Jersey City Branch) & PATH



## JFK Boulevard over Conrail (Jersey City Branch) & PATH

**Structure #** 0900008

**Township:** Jersey City

**County:** Hudson **Owner:** County

**Type:** Open Spandrel Ribbed Arch

**# Spans:** 2

**Material:** Reinforced Concrete

**Design:** Elliptical Arch

**Length:** 487 ft **Width:** 106.5 ft

**Constructed:** 1926

**Alteration Date:** 1973

**Builder:** Stillman Delehanty Ferris

**Designer/Patent:** A. Burton Cohen

**Summary:** The graceful handsomely ornamented open spandrel ribbed arch forms one of the oldest elements of Journal Square. It continues the urban texture of the city over a major east-west rail line contained in a partly natural, partly artificial cut that traverses the Palisades ridge. The west side of the span appears generally unaltered, but 1973 extensions on the east conceal the arch from that side. It was designed by A.B. Cohen (d. 1956), one of the leading designers of concrete bridges.

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# 14<sup>th</sup> Street Viaduct over Conrail



## 14<sup>th</sup> Street Viaduct over Conrail

**Structure #** 0900016    **County:** Hudson    **Owner:** County    **Township:** Hoboken City

**Type:** Deck Girder & Deck Truss    **# Spans:** 31    **Material:** Steel    **Design:** Warren    **Length:** 1460 ft    **Width:** 41 ft

**Constructed:** 1910    **Alteration Date:** 1938, 1987

**Builder:** Unknown    **Designer/Patent:** Waddell & Hardesty (1938)

**Summary:** Constructed in 1910, the long, 31-span bridge consists of two Warren deck truss spans, twenty seven deck girder spans, and two stringer spans supported on steel bents that were strengthened in 1938 and concrete abutments. The truss bearings and footings were also upgraded in 1938. While the spans themselves are not technologically innovative, the structure as a whole is impressive given its size, date of construction and state of preservation. It was rehabilitated again in 1987, the year the roadway was widened.

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# US 206 Over Stony Brook



## US 206 over Stony Brook

**Structure #** 1129155

**Township:** Princeton Township

**County:** Mercer      **Owner:** NJDOT

**Type:** Stone Arch      **# Spans:** 3

**Material:** Stone

**Design:** Barrel Arch

**Length:** 82 ft      **Width:** 30 ft

**Constructed:** 1792

**Builder:** Unknown

**Designer/Patent:** Unknown

**Summary:** The well-proportioned 3-span rubble-coursed stone arch has ring stones and a low stone parapet. One of several ca. 1800 stone arch bridges, it is a large and impressive example of late 18<sup>th</sup> century engineering. The bridge is located in the Princeton Battlefield/Stony Brook Village District Extension (1989). It was built within the period of significance of the district and should be considered a contributing resource based on its age, structural type, and history.

## A New Jersey Historic Bridge Sampler



# Old NJ 27 Over Millstone River



## Old NJ 27 over Millstone River

**Structure #** 1105151

**Township:** Princeton Township

**County:** Mercer

**Owner:** NJDOT

**Type:** Stone Arch    **# Spans:** 4

**Material:** Stone    **Design:** Barrel Arch

**Length:** 110 ft    **Width:** 22.2 ft

**Constructed:** 1798

**Builder:** Unknown

**Designer/Patent:** Unknown

**Summary:** The well-preserved four-span rubble-coursed stone arch bridge dates to 1798 and was part of the main road from Philadelphia to New York. The bridge is individually significant as one of the best examples of its type based on its date of construction, size, integrity of setting, and relatively complete state of preservation. Located in a State park, it serves primarily as a pedestrian bridge. The bridge is individually eligible for listing in the National Register of Historic Places under Criterion C and as a contributing element of three historic districts: Kingston Mill Historic District, Delaware & Raritan Canal Historic District, and the King's Highway (Upper Road) Historic District (currently in the nomination process).

## A New Jersey Historic Bridge Sampler





# Bear Tavern Road Over Jacobs Creek



## **Bear Tavern Road over Jacobs Creek**

**Structure #** 1100060

**Township:** Hopewell Township

**County:** Mercer

**Owner:** County

**Type:** Thru Truss # Spans: 1

**Material:** Metal **Design:** Pratt Half Hip

**Length:** 75 ft **Width:** 17.5 ft

**Constructed:** 1882

**Builder:** Unknown

**Designer/Patent:** King Iron Bridge Co.

**Summary:** The 4-panel half hip pin-connected Pratt thru truss bridge supported on ashair abutments was designed and fabricated by the King Iron Bridge and Manufacturing Company of Cleveland in 1882. It is the oldest thru truss bridge in the county. The bridge is nearly identical to, although 27 ' (one panel) shorter than, the 1885 King Iron Bride co. span on Mine Road (1100072) . The bridge is well preserved, with welded repairs limited to the lower portions of some verticals.

**A New Jersey Historic Bridge Sampler**





# D&R Canal Feeder Over Parkside



## D&R Canal Feeder over Parkside

**Structure #** 3001160

**Township:** Trenton City

**County:** Mercer

**Owner:** NJDOT

**Type:** Stringer    **# Spans:** 4

**Material:** Steel    **Design:** Encased

**Length:** 60 ft    **Width:** 90 ft

**Constructed:** 1909

**Builder:** Unknown

**Designer/Patent:** Pennsylvania RR

**Summary:** The handsome, concrete aqueduct with Neo-Classical-style balustrades and octagonal columns is the most significant “City Beautiful” bridge in the Trenton City area, and it may be the earliest. It was designed and built by the Pennsylvania Railroad to carry the canal and railroad over the entrance to Cadwalader Park, which was developed after 1888 on the grounds of the McCall Mansion. The house and surrounding 100 acres are listed, but the aqueduct is not rated. It is a contributing resource to both the McCall Mansion House and the Delaware & Raritan Canal Historic District. It is also individually significant based on its type, completeness and history.

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# US 1&9 Over NJ 35



## US 1&9 over NJ 35

**Structure #** 1205150

**Township:** Hamilton Township

**County:** Middlesex

**Owner:** NJDOT

**Type:** Pony Truss **# Spans:** 1

**Material:** Steel **Design:** Warren

**Length:** 64 ft **Width:** 22.9 ft

**Constructed:** 1915 **Alteration Date:** 1966

**Builder:** Brown & Mackenthum

**Designer/Patent:** Theodore Tobish, Co. Engineer

**Summary:** The well-detailed 20 span stringer bridge on a concrete substructure is an integral part of the earliest documented cloverleaf interchange in the State. It is technologically significant as the prototype of a well-established solution to traffic engineering. New Jersey was a national leader in the development of grade crossing eliminations, and the Woodbridge cloverleaf survives as a well-reserved example of the innovative solutions the State Highway Department developed in the 1920's.

## A New Jersey Historic Bridge Sampler





# NJ 18 NB Over Westons Mill Pond (Lawrence Brook)



## **NJ 18 NB over Westons Mill Pond (Lawrence Brook)**

**Structure #** 1213150

**Township:** East Brunswick Township

**County:** Middlesex

**Owner:** NJDOT

**Type:** Open Spandrel Ribbed Arch

**# Spans:** 3     **Material:** Reinforced Concrete

**Design:** Parabolic

**Length:** 228 ft   **Width:** 50 ft

**Constructed:** 1931   **Alteration Date:** 1992

**Builder:** Unknown

**Designer/Patent:** NJ State Highway  
Department (Bridge Division)

**Summary:** The well-proportioned 3-span open spandrel ribbed arch bridge with spandrel columns was altered in 1992 when the original deck and balustrades were replaced with a new deck and parapets, but the bridge remains a significant example of an uncommon type. It is one of approximately eight such bridges designed and built by the State between 1929 and 1939. The bridge is technologically and historically significant.

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# Middlesex Avenue (NJ 27) Over Conrail



**Middlesex Avenue (NJ27) over Conrail**  
**Structure #** 1218154

**Township:** Metuchen Township

**County:** Middlesex

**Owner:** Unknown (Jurisdiction – NJDOT)

**Type:** Deck Girder    **# Spans:** 3    **Material:** Steel

**Design:** Open Web    **Length:** 167 ft    **Width:** 30 ft

**Constructed:** 1909    **Alteration Date:** 1922

**Builder:** American Bridge Company

**Designer/Patent:** American Bridge Company

**Summary:** The 3-span lattice web deck girder bridge rests on steel bents and concrete abutments. The uncommon superstructure was built in 1909, using only the fascia girders and bents. The center lattice web girder and its supporting columns were added in 1922 to increase the live load capacity as automobiles came into prominence. The 1909 railing has cast iron posts and latticed panels topped with filigree bands. The bridge is technologically important as one of the few examples of the type in the State.

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# NJ 35 Over Raritan River (Victory Bridge)



## **NJ 35 over Raritan River (Victory Bridge)**

**Structure #** 1223150

**Township:** Sayreville Borough

**County:** Middlesex

**Owner:** NJDOT **Type:** Swing Span

**# Spans:** 53 **Material:** Steel

**Design:** Center Bearing

**Length:** 3091 ft **Width:** 38 ft

**Constructed:** 1926 **Alteration Date:** 1972

**Summary:** The subdivided Warren thru-truss swing-span bridge still functions as it was originally intended. The original (or in-kind replaced) gears and electric motors rotate the center-bearing structure. The approach spans are deck girders (9 spans) and stringers (44 spans). Concrete balustrades enclose the stringer spans, while the steel deck-girder and truss spans have a metal railing. The tender's house sits above the roadway at the center pier. The bridge is a large, well-preserved example of its type.

## **A New Jersey Historic Bridge Sampler**





# NJ 27 (Albany Street) Over Raritan River



NJ 27 (Albany Street) over Raritan River

Structure # 1217150

**Township:** North Brunswick Township

**County:** Middlesex **Owner:** NJDOT

**Type:** Brick Arch **# Spans:** 10 **Material:** Brick

**Design:** Elliptical Arch **Length:** 595 ft

**Width:** 41 ft **Constructed:** 1890

**Summary:** Built ca. 1890 as a 32 ft-wide, 7-span brick arch with well detailed coursed ashlar spandrel walls and gauged ring stones, the bridge has been altered several times. In 1924, to alleviate vehicular congestion at the crossing, the State widened the bridge with an arched concrete addition to the upstream side. The deck girder approach spans were also widened in kind. The need for widening demonstrates the structure's historical associations with the economic vibrancy of New Brunswick that was, and is, an important regional commercial center. The 1924 widening, despite its use of a different masonry material, is compatible with the arch design and construction of the original structure. This arched concrete addition has gained significance over time and does not diminish the integrity of the structure. The bridge was widened again in 1954, and in 1985 the deck and railings were replaced. Despite these changes, the bridge retains its original appearance on the upstream elevation below the bridge deck. This structure is individually eligible for listing in the National Register of Historic Places as an example to a large multi-span arched viaduct, and as a contributing element of the Delaware and Raritan Canal Historic District.

## A New Jersey Historic Bridge Sampler





# US 1 NB Over Raritan River



## US 1 NB over Raritan River

**Structure #** 1203150 **County:** Middlesex  
**Owner:** NJDOT **Township:** New Brunswick City  
**Type:** Open Spandrel Ribbed Arch  
**# Spans:** 15 **Material:** Reinforced Concrete  
**Length:** 1902 ft **Width:** 50 ft  
**Constructed:** 1929 **Alteration Date:** 1971  
**Builder:** Parker and Graham Inc.  
**Designer/Patent:** Morris Goodkind, NJ Highway Department

**Summary:** Constructed in 1929, the well-preserved 15-span ribbed arch bridge is composed of 6 open spandrel arches and 9 closed spandrel arch approach spans. Among the earliest of the large State-designed spans to emphasize the moldable properties of concrete in its handsome detailing, the bridge reflects the New Jersey State Highway Department Bridge Division's emphasis on sound bridge engineering coupled with aesthetics. In 1969, the bridge was posthumously named for its designer, Morris Goodkind, Chief Bridge Engineer.

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# NJ 36 Over Shrewsbury River & Bay Avenue



## NJ 36 over Shrewsbury River & Bay Avenue

**Structure #** 1315150 **Township:** Highlands Borough **County:** Monmouth **Owner:** NJDOT

**Type:** Double Leaf Bascule **# Spans:** 12 **Material:** Steel **Design:** Trunnion **Length:** 1241 ft **Width:** 44 ft

**Constructed:** 1932

**Summary:** The main span of the 12-span bridge is a 140 ft-span double-leaf haunched deck girder trunnion bascule. The 11 approach spans are multi-deck girders with concrete balustrades. The bascule retains its original or in kind replacement gearing, controls, and electrified systems. In 1931 the noted engineering firm of Waddell & Hardesty designed the bridge. It is an exceptionally well-preserved and beautifully situated example of early-20<sup>th</sup> century bridge technology.

## A New Jersey Historic Bridge Sampler





# Mantoloking Road (CR 528) Over Barnegat Bay



**Mantoloking Road (CR 528) over  
Barnegat Bay**  
**Structure #** 1506006  
**Township:** Brick Township  
**County:** Ocean **Owner:** County  
**Type:** Single Leaf Bascule **# Spans:** 41  
**Material:** Steel **Design:** Trunnion Lift  
**Length:** 1120 ft **Width:** 28 ft  
**Constructed:** 1938 **Alteration Date:** 1975  
**Builder:** Eastern Engineering Co.  
**Designer/Patent:** Ash, Howard, Needles & Tammen

**Summary:** The main span of the 41-span bridge is a single leaf trunnion bascule haunched deck girder with floor beams. A fixed haunched deck girder on the west approach matches it, and the other approach spans are T-beams on timber pile bents. The operating mechanism with open gear sets and enclosed differential are original. The bridge, one of the best examples of its type in the region, is historically and technologically significant.

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# US 46 Over Passaic River & Riverview Drive



## US 46 over Passaic River & Riverview Drive

Structure # 1606158 County: Passaic

Owner: NJDOT

Township: Little Falls Township

Type: Open Spandrel Ribbed Arch # Spans: 5

Material: Reinforced Concrete

Design: Elliptical Length: 476 ft Width: 92 ft

Constructed: 1939

Builder: Bates & Rogers Contractors, NYC

Designer/Patent: NJ State Highway Department,  
Bridge Division



Summary: The 5-span open spandrel ribbed arch bridge, one of 10 designed between 1929 and 1939 by the bridge division under the direction of Morris Goodkind, is a large and well-preserved example of the technologically noteworthy bridge type. They combine economy of material with great elegance and were selected by the State for highly visible large crossings. The bridge is an important example of its type.

## A New Jersey Historic Bridge Sampler



# NJ 49 Over Salem River



**NJ 49 over Salem River**

**Structure # 1707150**

**Township:** Salem City

**County:** Salem

**Owner:** NJDOT

**Type:** Single Leaf Bascule #

**Spans:** 5

**Material:** Steel

**Design:** Strauss Overhead

**Counterweight**

**Length:** 381 ft **Width:** 30 ft

**Constructed:** 1927

**Builder:** Phoenix Bridge Company

**Designer/Patent:** Strauss Bridge Company

**Summary:** The bridge's main span is an operating, single-leaf, steel thru girder, patented Strauss overhead bascule lift bridge with steel tower and overhead counterweight. The four approach spans are encased steel thru girders with floor beams. The bridge has reinforced concrete substructure and timber pile fenders. The Strauss Bridge Co. of Chicago was the nation's best-known designer of movable spans. The bridge is a well documented and equally well-preserved example of its type.

## A New Jersey Historic Bridge Sampler





# US 22 EB Over North Branch Raritan River



## **US 22 EB over North Branch Raritan River**

**Structure #** 1801153

**Township:** Bridgewater Township **County:** Somerset

**Owner:** NJDOT

**Type:** Deck Arch **# Spans:** 3

**Material:** Reinforced Concrete

**Design:** Elliptical Arch **Length:** 206 ft **Width:** 35 ft

**Constructed:** 1942

**Builder:** Ell Dorer Contracting Company

**Designer/Patent:** NJ State Highway Department, Bridge Division

**Summary:** The bridge is a three-span reinforced concrete arch with concrete balustrades and pylons. The bridge is distinguished by its concrete pylons with numerous decorative tile mosaics. The mosaics depict sea animals, landscapes, and abstract designs.

## **A New Jersey Historic Bridge Sampler**





# US 206 Over Raritan River



## US 206 over Raritan River

**Structure #** 1810170

**Township:** Somerville Borough

**County:** Somerset

**Owner:** NJDOT    **Type:** Arch    **# Spans:** 4

**Material:** Reinforced Concrete

**Design:** Open Spandrel Arch

**Length:** 382 ft    **Width:** 40 ft

**Constructed:** 1929

**Builder:** Unknown

**Designer/Patent:** NJ State Highway Department,  
Bridge Division

**Summary:** The 4-span, open spandrel, barrel arch bridge is one of over 10 well-detailed and handsomely proportioned example of its type built by the State Highway Department in the late 1920's and 1930's. It is finished with concrete balustrades and pylons that originally carried classically inspired luminaries (removed). The bridge is well-preserved and is representative of the handsome spans the State designed for major crossings on its rapidly expanding road network.

## A New Jersey Historic Bridge Sampler



# US 22 WB Over North Branch Raritan River



## US 22 WB over North Branch Raritan River

**Structure #** 1801154

**Township:** Bridgewater Township

**County:** Somerset

**Owner:** NJDOT

**Type:** Deck Arch # Spans: 3

**Material:** Reinforced Concrete

**Design:** Elliptical Arch

**Length:** 206 ft **Width:** 35 ft

**Constructed:** 1942

**Builder:** Ell Dorer Construction Company

**Designer/Patent:** NJ State Highway Dept., Bridge Division



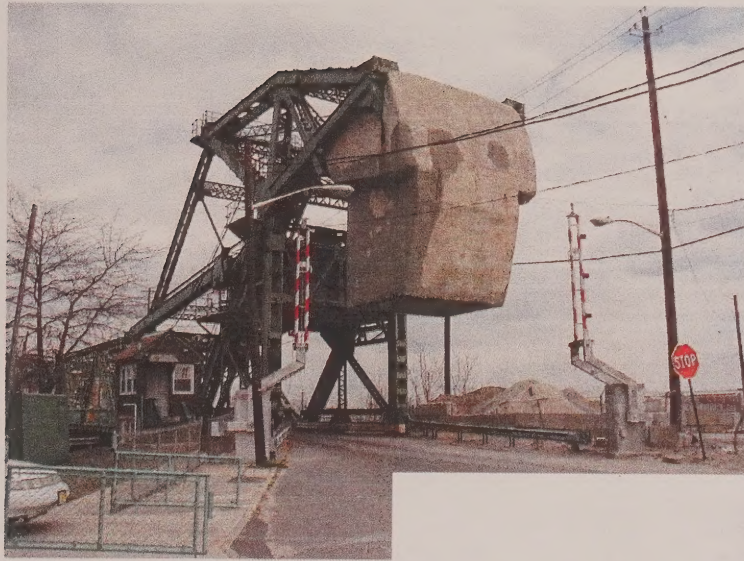
**Summary:** The bridge is a 3-span reinforced concrete arch with concrete balustrades and paneled posts. The bridge is distinguished by its high-end pylons with tile mosaics depicting sea animals, landscapes, and abstract designs. Except for the removal of luminaries, the bridge and its adjacent twin span are well-preserved. Together they reflect the emphasis on aesthetics that was the hallmark of the State Highway Department at that time. The handsome spans are historically distinguished.

## A New Jersey Historic Bridge Sampler





# South Front Street Over Elizabeth River



## South Front Street over Elizabeth River

Structure # 2004001

Township: Elizabeth City

County: Union

Owner: County    Type: Single Leaf Bascule    #

Spans: 1

Material: Steel    Design: Strauss Heel  
Trunnion

Length: 158 ft    Width: 17.8 ft

Constructed: 1920    Alteration Date: 1976

Builder: American Bridge Company

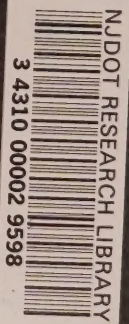
Designer/Patent: Strauss Bascule Bridge Company

**Summary:** The skewed Strauss heel trunnion bridge has a Warren thru-truss movable span, with an overhead concrete counterweight. The bridge bears on concrete abutments. The original gearing is housed above the roadway, along with electric motors from 1940. The only operational movable-span bridge in Union County, the bridge is a well-preserved example of an uncommon type and is historically and technologically noteworthy.

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